

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

- a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.
- b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized representative of the Director, upon

receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form)

that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

Ohio EPA Permit to Install Information Form Please describe below any documentation which is being submitted with this recommendation (must be sent the same day). Electronic items should be submitted with the e-mail transmitting the PTI terms, and in software that CO can utilize. If mailing any hard copy, this section must be printed as a cover page. All items must be clearly labeled indicating the PTI name and number. Submit **hard copy items to Mike Hopkins**, AQM&P, DAPC, Central Office, and electronic files to airpti@epa.state.oh.us

Please fill out the following. If the checkbox does not work, replace it with an 'X'

	<u>Electroni</u> <u>c</u>	<u>Additional information File</u> <u>Name Convention (your PTI</u> <u># plus this letter)</u>	<u>Hard</u> <u>Copy</u>	<u>Non</u> <u>e</u>
<u>Calculations (required)</u>	<input checked="" type="checkbox"/>	0316262c.wpd	<input type="checkbox"/>	
Modeling form/results	<input type="checkbox"/>	0000000s.wpd	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PTI Application (complete or partial)*	<input type="checkbox"/>	0000000a.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
BAT Study	<input type="checkbox"/>	0000000b.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other/misc.	<input type="checkbox"/>	0000000t.wpd	<input type="checkbox"/>	<input checked="" type="checkbox"/>

* Mandatory for netting, PSD, nonattainment NSR, 112(g), 21-07(G)(9)(g) and 21-09(U)(2)(f) - 2 complete copies.

Please complete (see comment bubble to the left for additional instructions):

NSR Discussion

See Permit Review Form

Please complete for these type permits (For PSD/NSR Permit, place mouse over this text):

Synthetic Minor Determination and/or **Netting Determination**
Permit To Install **03-16262**

A. Source Description

This permit addresses a paint spray operation with oven, K001, and a rail car cleaning operation with flare, P002, at the Union Tank Car facility in Marion, Ohio.

B. Facility Emissions and Attainment Status

The facility is potentially a major source for Title V and MACT for VOC and HAP emissions. Marion county is in attainment/unclassifiable for all criteria pollutants.

C. Source Emissions

Potential VOC Emissions: The potential coating VOC emissions from K001 are based on the maximum hourly gallon usage rate and the maximum VOC content at 8760 hours of operation a year. The potential cleanup operation VOC emissions from K001 are based on the maximum annual gallon usage, the maximum VOC content and a 70% recovery rate. The potential VOC emissions from P002 are based on the maximum residual material left in the rail cars, maximum cars processed per shift, the maximum number of shifts per day, maximum days of operation per week, maximum number of weeks in a year and a destruction efficiency of 98% from the flare.

K001:

Coatings: (5 gal/hr) (3.5 lbs VOC/gal) (8760 hrs/yr) (ton/2000 lbs) = 76.65 tons VOC/yr

Cleanup Operations: (4000 gal/yr) (7.51 lbs VOC/gal) (ton/2000 lbs) (1-0.70) = 4.51 tons

VOC/yr

P002: (741.5 lbs VOC material/car) (5.3 cars/shift) (3 shifts/day) (365 days/yr) (ton/2000 lbs) (1-0.98) = 43.03 tons VOC/yr

Total Potential VOC Emissions: 76.65 tons/yr + 4.51 tons/yr + 43.03 tons/yr = **124.19 tons/yr**

Potential HAPs Emissions: The potential emissions from K001 and P002 are greater than 10 tons/yr for individual HAPs and 25 tons/yr for aggregate HAPs.

Restricted VOC Emissions: The facility would trigger the Title V and MACT thresholds for VOC emissions if the potential emissions of K001 and P002 were used to establish the emissions units' limits. The facility, however, wishes to avoid triggering Title V thresholds for criteria pollutants. To accomplish this, synthetic minor restrictions were required. The facility has accepted a federally enforceable restriction on coating usage of 30,000 gallons per year for emissions unit K001 (The VOC content of the coatings in K001 are restricted to 3.5 lbs/gal by OAC rule 3745-21-09(U)(1)(d)). The facility has also accepted a restriction on the amount of VOC materials processed (385,580 lbs per year) by P002 to reduce their VOC emissions below Title V levels.

K001:

Coatings: (30,000 gal/hr) (3.5 lbs VOC/gal) (ton/2000 lbs) = 52.50 tons VOC/yr

Cleanup Operations: (4000 gal/yr) (7.51 lbs VOC/gal) (ton/2000 lbs) (1-0.70) = 4.51 tons VOC/yr

P002: (385,580 lbs VOC material/yr) (ton/2000 lbs) (1-0.98) = 3.86 tons VOC/yr

Total Potential VOC Emissions: 52.50 tons/yr + 4.51 tons/yr + 3.86 tons/yr = **60.87 tons/yr**

Restricted HAPs Emissions: The facility would trigger the Title V and MACT thresholds for HAPs emissions if the potential emissions of K001 and P002 were used to establish the emissions units' limits. The facility, however, wishes to avoid triggering Title V and MACT thresholds for HAPs. To accomplish this, synthetic minor restrictions were required. The facility has accepted the following federally enforceable restrictions on HAPs emissions: Annual HAP emissions resulting from the use of coatings and cleanup materials and the cleaning of rail cars in emissions units K001 and P002 combined shall not exceed 10 tons per rolling 12-month period for any individual HAP or 25 tons per rolling 12-month period for any combination of HAPs.

D. Conclusion

With the coating gallon usage restrictions, the coating VOC content restriction, the maximum number of cars cleaned and the rolling HAP limitations, the VOC and HAP emissions will be below the Title V and MACT thresholds. Therefore, the facility will not be subject to Title V or MACT requirements.

PLEASE PROVIDE ADDITIONAL NOTES OR COMMENTS AS NECESSARY:

NONE

Please complete:

SUMMARY (for informational purposes only)

TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

<u>Pollutant</u>	<u>Tons Per Year</u>
VOC	60.87
Individual HAPs	9.90
Combined HAPs	24.90

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
K001 - Paint spray booth with dry filtration (Administrative Modification of PTI #03-16018 issued on June 22, 2004 to correct federally enforceable limits)	OAC rule 3745-31-05(A)(3)	17.5 lbs of volatile organic compounds (VOC)/hr from coating operation
		751.7 tons VOC/month, 4.51 tons VOC/yr from cleanup operations
	OAC rule 3745-31-05(C)	See A.2.a
		52.50 tons of VOC per rolling, 12-month period from coating operations (See A.2.b.i and B.1)
	OAC rule 3745-21-09(U)(1)(d)	Annual HAP emissions from emissions units K001 and P002 combined shall not exceed 9.90 tons per rolling 12-month period for any individual HAP or 24.90 tons per rolling 12-month period for any combination of HAPs. (See A.2.b.ii)
		3.5 pounds VOC per gallon of coating, excluding water and exempt solvents, for coatings

dried at temperatures not exceeding 200 degrees Fahrenheit

2. Additional Terms and Conditions

2.a The requirements of this rule also include compliance with the requirements of OAC rule 3745-21-09(U)(1)(d) and OAC rule 3745-31-05(C).

2.b This permit establishes the following federally enforceable emission limitations for purposes of avoiding applicability of Title V and Maximum Achievable Control Technology (MACT) regulations:

- i. 52.50 tons VOC per rolling 12-month period based on coating usage restrictions. (See B.1) and a maximum coating VOC content of 3.5 lbs/gal established by OAC rule 3745-21-09(U)(1)(d).
- ii. Annual HAP emissions from emissions units K001 and P002 combined shall not exceed 9.90 tons per rolling 12-month period for any individual HAP and 24.90 tons per rolling 12-month period for any combination of HAPs.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the HAP emission rates specified in the following table:

Maximum Allowable Cumulative HAP Emission Rates (tons):

<u>Month(s)</u>	<u>Individual HAP</u>	<u>Combined HAPs</u>
1-1	0.83	2.08
1-2	1.66	4.16
1-3	2.49	6.24
1-4	3.32	8.32
1-5	4.15	10.40
1-6	4.98	12.48
1-7	5.81	14.56
1-8	6.64	16.64
1-9	7.47	18.72
1-10	8.30	20.80

1-11	9.13	22.88
1-12	9.90	24.90

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual HAP limitations shall be based upon a rolling, 12-month summation of the monthly emission rates.

B. Operational Restrictions

1. The maximum annual coating usage rate for this emissions unit shall not exceed 30,000 gallons, based upon a rolling, 12-month summation of the monthly coating usage rates. The permittee shall use existing records to determine compliance upon commencing operation under the provisions of this permit. Therefore, it is not necessary to establish federally enforceable restrictions for the first 12 months of operation under the provisions of this permit.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall collect and record the following information each month for all coatings employed in this emissions unit:
 - a. the name and identification number of each coating employed;
 - b. the VOC content of each coating, as applied, in pounds per gallon;
 - c. the VOC content of each coating (excluding water and exempt solvents), in pounds per gallon, as applied [the VOC content shall be calculated in accordance with the equation specified in paragraph (B)(8) of OAC rule 3745-21-10 for $C_{VOC,2}$];
 - d. the amount of each individual HAP in each coating, in pounds per gallon, as applied;
 - e. the number of gallons of each coating employed;
 - f. the total number of gallons of all coatings employed (summation of C.1.e);
 - g. the annual coating usage, in gallons, for all coatings employed, based upon a rolling 12-month summation of the monthly usage rates;

- h. the VOC emission rate for each coating (C.1.b x C.1.e), in pounds;
- i. the total VOC emission rate for all coatings (summation of C.1.h), in pounds or tons;
- j. the annual VOC emissions, in tons, from all coatings, based upon a rolling 12-month summation of the monthly VOC emissions.
- k. the emission rate for each individual HAP from each coating employed (C.1.d x C.1.e), in pounds per month;

Note: The information required above must be recorded for the materials as applied, including any thinning solvents added at the emissions unit.

- 2. The permittee shall collect and record the following each month for cleanup operations:
 - a. the name and identification of each cleanup material employed;
 - b. the VOC content of each cleanup material employed, in pounds per gallon;
 - c. the amount of each individual HAP in each cleanup material employed, in pounds per gallon;
 - d. the number of gallons of each cleanup material employed;
 - e. the VOC emissions from each cleanup material employed (C.2.b x C.2.d), in pounds;
 - f. the total VOC emissions from all cleanup materials employed (summation of C.2.e), in pounds or tons;
 - g. the annual year to date VOC emissions from cleanup operations, in tons per year (summation of C.2.f for each calendar month to date from January to December); and
 - h. the emission rate for each individual HAP from each cleanup material employed (C.2.c x C.2.d), in pounds per month.
- 3. The permittee shall collect and record the following HAP information each month for emission units K001 and P002 combined:

Emissions Unit ID: **K001**

- a. the total emission rate for each individual HAP from all coatings and cleanup materials employed in emissions unit K001 and individual HAP emitted from emissions unit P002 (rail car cleaning operation with flare), in pounds per month (summation of the individual HAPs quantified in C.1.k, C.2.h and from emissions unit P002*);

*Quantification of HAP emissions from the railcar cleaning operation are required in the monitoring and recordkeeping section of the permit for emissions unit P002.

- b. the total HAP emission rate for all HAPs combined from all coatings and cleanup materials employed in emissions unit K001 and total HAPs emitted from emissions unit P002 (summation of all individual HAPs quantified in C.3.a) , in tons per month
 - c. for the first 12 months of operation, the cumulative monthly emission rate of each individual HAP and all HAPs combined, in tons per month; and
 - d. after the first 12 months of operation, the annual emissions of each individual HAP and all HAPs combined, based upon a rolling 12-month summation of monthly HAP emissions.
4. The Permit to Install for emissions units K001 and P002 was evaluated based on the actual materials (typically coatings and cleanup materials) and the design parameters of the emissions unit's exhaust system, as specified by the permittee in the Permit to Install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by these emission units using data from the Permit to Install application and the Screen3 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the Screen3 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methyl isobutyl ketone

TLV (mg/m3): 204,826

Maximum Hourly Emission Rate (lbs/hr): 2.05

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m3): 2545

MAGLC (mg/m³): 4877

Pollutant: toluene

TLV (mg/m³): 188,405

Maximum Hourly Emission Rate (lbs/hr): 0.54

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 676

MAGLC (mg/m³): 4486

Pollutant: diethylene glycol monomethyl ether

TLV (mg/m³): 96,663

Maximum Hourly Emission Rate (lbs/hr): 1.75

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 2177

MAGLC (mg/m³): 2302

Pollutant: ethylene glycol monobutyl ether acetate

TLV (mg/m³): 131,043

Maximum Hourly Emission Rate (lbs/hr): 1.68

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 2088

MAGLC (mg/m³): 3120

Pollutant: xylene

TLV (mg/m³): 434,192

Maximum Hourly Emission Rate (lbs/hr): 2.68

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 3320

MAGLC (mg/m³): 10,338

Pollutant: n-butyl alcohol

TLV (mg/m³): 60,630

Maximum Hourly Emission Rate (lbs/hr): 0.75

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 934.5

MAGLC (mg/m³): 1444

Pollutant: MEK

TLV (mg/m³): 589,775

Maximum Hourly Emission Rate (lbs/hr): 1.17

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 1461

MAGLC (mg/m³): 14,042

Pollutant: methyl n-amyl ketone

TLV (mg/m³): 233,497

Maximum Hourly Emission Rate (lbs/hr): 1.03
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 1292
MAGLC (mg/m³): 5559

Pollutant: isopropyl alcohol
TLV (mg/m³): 491,534
Maximum Hourly Emission Rate (lbs/hr): 0.26
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 323.1
MAGLC (mg/m³): 11,703

Pollutant: propylene glycol monomethyl ether
TLV (mg/m³): 368,589
Maximum Hourly Emission Rate (lbs/hr): 0.25
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 310.7
MAGLC (mg/m³): 8776

Pollutant: isobutyl alcohol
TLV (mg/m³): 151,575
Maximum Hourly Emission Rate (lbs/hr): 0.26
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 323.1
MAGLC (mg/m³): 3609

Pollutant: acetone
TLV (mg/m³): 1,187,117
Maximum Hourly Emission Rate (lbs/hr): 0.52
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 646.2
MAGLC (mg/m³): 28,265

Pollutant: lead
TLV (mg/m³): 50
Maximum Hourly Emission Rate (lbs/hr): 0.23
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 0.1714
MAGLC (mg/m³): 1.19

5. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make

the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:

- a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
- b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
- c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

6. The permittee shall collect, record, and retain the following information when it conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"
 - a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
 - b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
 - c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall notify the Northwest District Office in writing of any monthly record showing the use of noncomplying coatings (coating that exceeds the 3.50 lbs of VOC/gallon excluding water and exempt solvents) in this emissions unit. The notification shall include a copy of such record and shall be sent to the Northwest District Office within 30 days following the end of the calendar month.

2. The permittee shall submit deviation (excursion) reports which identify any exceedances of the following:
 - a. any exceedances of the 52.50 tons OC per rolling 12-month period emission limitation.

 - b. any exceedances of the maximum annual coating usage rate not to exceed 30,000 gallons, based upon a rolling, 12-month summation of the monthly coating usage rates.

 - d. any exceedances of the rolling individual HAP and combined HAPs emission limitations specified in section A.2.b.ii.,

 - e. for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative individual HAP and combined HAPs emission limitations specified in section A.2.b.ii.

 - f. any exceedances of the 751.7 lbs VOC/month from cleanup operations.

These reports shall be submitted in accordance with the general terms and conditions of this permit.

3. The permittee shall submit annual deviation (excursion) reports which identify any exceedances of the 4.51 tons VOC/yr from cleanup operations. If no deviations occurred during a calendar year, the permittee shall submit an annual report which states that no deviations occurred. These reports shall be submitted by January 31 of each year and shall cover the previous calendar year.

E. Testing Requirements

Emissions Unit ID: **K001**

1. Compliance with the emission limitations specified in section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: 17.5 lbs VOC/hr from coating operations

Applicable Compliance Method: The hourly emission limitation represents the potential to emit* of the emissions unit. Therefore, no record keeping, deviation reporting, or compliance method calculations are required to demonstrate compliance with this limitation.

*The potential to emit is based on a worst-case coating operation involving a maximum coating usage rate of 5.0 gallons per hour and a maximum VOC content of 3.50 pounds per gallon.

- b. Emission Limitation: 751.7 lbs VOC/month from cleanup operations

Applicable Compliance Method: Compliance with the above emission limitation shall be based upon the record keeping requirements specified in section C.2.

- c. Emission Limitation: 4.51 tons VOC/yr from cleanup operations

Applicable Compliance Method: Compliance with the above emission limitation shall be based upon the record keeping requirements specified in section C.2.

- d. Emission Limitation: 3.5 pounds VOC per gallon of coating, excluding water and exempt solvents, for coatings dried at temperatures not exceeding 200 degrees Fahrenheit

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.1. Formulation data or U.S. EPA Method 24 shall be used to determine the VOC content of the coatings.

- e. Emission Limitation: 52.50 tons of VOC per rolling, 12-month period from coating operations

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.1.

- f. Emission Limitation: Annual HAP emissions from emissions units K001 and P002 combined shall not exceed 9.90 tons per rolling 12-month period for any

individual HAP or 24.90 tons per rolling 12-month period for any combination of HAPs.

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.3.

- g. Emission Limitation: The maximum annual coating usage rate for this emissions unit shall not exceed 30,000 gallons, based upon a rolling, 12-month summation of the monthly coating usage rates.

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.1.

F. Miscellaneous Requirements

1. The terms and conditions contained in A.1, A.2, B.1, C.1, C.2, C.3, D.1, D.2, D.3, and E.1 are federally enforceable.

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

<u>Operations, Property, and/or Equipment</u>	<u>Applicable Rules/Requirements</u>	<u>Applicable Emissions Limitations/Control Measures</u>
P002 - Rail car cleaning operation with flare (Administrative Modification of PTI #03-16018 issued on June 22, 2004 to correct federally enforceable limits)	OAC rule 3745-31-05(A)(3)	Control Requirements (See A.2.b) See A.2.c and B.3
	OAC rule 3745-31-05(C)	3.86 tons of volatile organic compounds per rolling 12-month period (See A.2.a.i and B.1) Annual HAP emissions from emissions units K001 and P002 combined shall not exceed 9.90 tons per rolling 12-month period for any individual HAP or 24.90 tons per rolling 12-month period for any combination of HAPs (See A.2.a.ii)

2. Additional Terms and Conditions

- 2.a This permit establishes the following federally enforceable emission limitations for purposes of avoiding applicability of Title V and Maximum Achievable Control Technology (MACT) regulations:
 - i. 3.86 tons VOC per rolling 12-month period based on the amount of VOC material processed. (See B.1)

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- ii. Annual HAP emissions from emissions units K001 and P002 combined shall not exceed 9.90 tons per rolling 12-month period for any individual HAP or 24.90 tons per rolling 12-month period for any combination of HAPs.

To ensure federal enforceability during the first 12 calendar months of operation under the provisions of this permit, the permittee shall not exceed the HAP emission rates specified in the following table:

Maximum Allowable Cumulative HAP Emission Rates (tons):

<u>Month(s)</u>	<u>Individual HAP</u>	<u>Combined HAPs</u>
1-1	0.83	2.08
1-2	1.66	4.16
1-3	2.49	6.24
1-4	3.32	8.32
1-5	4.15	10.40
1-6	4.98	12.48
1-7	5.81	14.56
1-8	6.64	16.64
1-9	7.47	18.72
1-10	8.30	20.80
1-11	9.13	22.88
1-12	9.90	24.90

After the first 12 calendar months of operation under the provisions of this permit, compliance with the annual HAP limitations shall be based upon a rolling, 12-month summation of the monthly emission rates.

- 2.b** Best Available Technology (BAT) control requirements for this emissions unit has been determined to be the use of a flare with a 98% destruction efficiency.
- 2.c** The requirements of this rule also include compliance with the requirements of OAC rule 3745-31-05(C).

B. Operational Restrictions

- 1. The maximum annual amount of VOC materials that can be processed by this emission

unit shall not exceed 385,580 pounds, based upon a rolling, 12-month summation of the VOC materials processed. The permittee shall use existing records to determine compliance upon commencing operation under the provisions of this permit. Therefore, it is not necessary to establish federally enforceable restrictions for the first 12 months of operation under the provisions of this permit.

2. A pilot flame shall be maintained at all times in the flare's pilot light burner.
3. The flare shall be designed for and operated with no visible emissions, except for periods of time not to exceed a total of 5 minutes during any 2 consecutive hours.

C. Monitoring and/or Recordkeeping Requirements

1. The permittee shall maintain monthly records of the following information:
 - a. the amount of VOC materials processed; in pounds; and
 - b. the rolling, 12-month summation of the amount of VOC materials processed.
2. The permittee shall collect and record the following information each month:
 - a. the name and identification number of each material flared;
 - b. the amount of each VOC material flared, in pounds;
 - c. the amount of each individual HAP in each material flared, in pound HAP/pound of VOC material flared;
 - d. the total amount of all VOC materials flared, in pounds;
 - e. the VOC emission rate for each material flared, in tons, using the following equation: $(C.2.b) \times (1 - 0.98^*)$;

*The destruction efficiency of flare
 - f. the total VOC emission rate for all materials flared (summation of C.2.e), in tons;
 - g. the annual VOC emissions from all materials flared, based upon a rolling 12-month summation of the monthly VOC emissions; and

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Install application. The Ohio EPA's "Review of New Sources of Air Toxic Emissions" policy ("Air Toxic Policy") was applied for each pollutant emitted by these emission units using data from the Permit to Install application and the Screen3 model (or other Ohio EPA approved model). The predicted 1-hour maximum ground-level concentration from the use of the Screen3 model was compared to the Maximum Acceptable Ground-Level Concentration (MAGLC). The following summarizes the results of the modeling for the "worst case" pollutant(s):

Pollutant: methyl isobutyl ketone

TLV (mg/m³): 204,826

Maximum Hourly Emission Rate (lbs/hr): 2.05

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 2545

MAGLC (mg/m³): 4877

Pollutant: toluene

TLV (mg/m³): 188,405

Maximum Hourly Emission Rate (lbs/hr): 0.54

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 676

MAGLC (mg/m³): 4486

Pollutant: diethylene glycol monomethyl ether

TLV (mg/m³): 96,663

Maximum Hourly Emission Rate (lbs/hr): 1.75

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 2177

MAGLC (mg/m³): 2302

Pollutant: ethylene glycol monobutyl ether acetate

TLV (mg/m³): 131,043

Maximum Hourly Emission Rate (lbs/hr): 1.68

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 2088

MAGLC (mg/m³): 3120

Pollutant: xylene

TLV (mg/m³): 434,192

Maximum Hourly Emission Rate (lbs/hr): 2.68

Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 3320

MAGLC (mg/m³): 10,338

Pollutant: n-butyl alcohol

TLV (mg/m³): 60,630

Maximum Hourly Emission Rate (lbs/hr): 0.75
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 934.5
MAGLC (mg/m³): 1444

Pollutant: MEK
TLV (mg/m³): 589,775
Maximum Hourly Emission Rate (lbs/hr): 1.17
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 1461
MAGLC (mg/m³): 14,042

Pollutant: methyl n-amyl ketone
TLV (mg/m³): 233,497
Maximum Hourly Emission Rate (lbs/hr): 1.03
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 1292
MAGLC (mg/m³): 5559

Pollutant: isopropyl alcohol
TLV (mg/m³): 491,534
Maximum Hourly Emission Rate (lbs/hr): 0.26
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 323.1
MAGLC (mg/m³): 11,703

Pollutant: propylene glycol monomethyl ether
TLV (mg/m³): 368,589
Maximum Hourly Emission Rate (lbs/hr): 0.25
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 310.7
MAGLC (mg/m³): 8776

Pollutant: isobutyl alcohol
TLV (mg/m³): 151,575
Maximum Hourly Emission Rate (lbs/hr): 0.26
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 323.1
MAGLC (mg/m³): 3609

Pollutant: acetone
TLV (mg/m³): 1,187,117
Maximum Hourly Emission Rate (lbs/hr): 0.52
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 646.2
MAGLC (mg/m³): 28,265

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Pollutant: lead
TLV (mg/m³): 50
Maximum Hourly Emission Rate (lbs/hr): 0.23
Predicted 1-Hour Maximum Ground-Level Concentration (mg/m³): 0.1714
MAGLC (mg/m³): 1.19

6. Physical changes to or changes in the method of operation of the emissions unit after its installation or modification could affect the parameters used to determine whether or not the "Air Toxic Policy" is satisfied. Consequently, prior to making a change that could impact such parameters, the permittee shall conduct an evaluation to determine that the "Air Toxic Policy" will still be satisfied. If, upon evaluation, the permittee determines that the "Air Toxic Policy" will not be satisfied, the permittee will not make the change. Changes that can affect the parameters used in applying the "Air Toxic Policy" include the following:
 - a. changes in the composition of the materials used (typically for coatings or cleanup materials), or the use of new materials, that would result in the emission of a compound with a lower Threshold Limit Value (TLV), as indicated in the most recent version of the handbook entitled "American Conference of Governmental Industrial Hygienists (ACGIH)," than the lowest TLV value previously modeled;
 - b. changes in the composition of the materials, or use of new materials, that would result in an increase in emissions of any pollutant with a listed TLV that was proposed in the application and modeled; and
 - c. physical changes to the emissions unit or its exhaust parameters (e.g., increased/ decreased exhaust flow, changes in stack height, changes in stack diameter, etc.).

If the permittee determines that the "Air Toxic Policy" will be satisfied for the above changes, the Ohio EPA will not consider the change(s) to be a "modification" under OAC rule 3745-31-01 solely due to the emissions of any type of toxic air contaminant not previously emitted, and a modification of the existing permit to install will not be required, even if the toxic air contaminant emissions are greater than the de minimis level in OAC rule 3745-15-05. If the change(s) is (are) defined as a modification under other provisions of the modification definition, then the permittee shall obtain a final permit to install prior to the change.

7. The permittee shall collect, record, and retain the following information when it

conducts evaluations to determine that the changed emissions unit will still satisfy the "Air Toxic Policy:"

- a. a description of the parameters changed (composition of materials, new pollutants emitted, change in stack/exhaust parameters, etc.);
- b. documentation of its evaluation and determination that the changed emissions unit still satisfies the "Air Toxic Policy"; and
- c. where computer modeling is performed, a copy of the resulting computer model runs that show the results of the application of the "Air Toxic Policy" for the change.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify any exceedances of the following:
 - a. any exceedances of the 3.86 tons VOC per rolling 12-month period emission limitation.
 - b. any exceedances of the maximum annual VOC materials processed not to exceed 385,580 pounds, based upon a rolling, 12-month summation of the VOC materials processed monthly.
 - c. any exceedances of the rolling individual HAP and combined HAPs emission limitations specified in section A.2.a.ii.,
 - d. for the first 12 calendar months of operation following the issuance of this permit, all exceedances of the maximum allowable cumulative individual HAP and combined HAPs emission limitations specified in section A.2.a.ii.
2. The permittee shall submit deviation (excursion) reports that identify all periods during which the pilot flame was not functioning properly. The reports shall include the date, time, and duration of each such period.

E. Testing Requirements

1. Compliance with the emission limitations specified in section A.1 of these terms and conditions shall be determined in accordance with the following methods:

- a. Emission Limitation: 3.86 tons of VOC per rolling, 12-month period

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.2.
- b. Emission Limitation: Annual HAP emissions from emissions units K001 and P002 combined shall not exceed 9.90 tons per rolling 12-month period for any individual HAP or 24.90 tons per rolling 12-month period for any combination of HAPs

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.3.
- c. Emission Limitation: The maximum annual amount of VOC materials that can be processed by this emission unit shall not exceed 385,580 pounds, based upon a rolling, 12-month summation of the VOC materials processed.

Applicable Compliance Method: Compliance shall be based upon the record keeping requirements in section C.1.
- d. Emission Limitation: The flare shall be designed for and operated with no visible emissions, except for periods of time not to exceed a total of 5 minutes during any 2 consecutive hours.

Applicable Compliance Method: If required, compliance shall be demonstrated in accordance with 40 CFR Part 60, Appendix A - Method 22.

F. Miscellaneous Requirements

1. The terms and conditions contained in A.1, A.2, B.1, B.2, B.3, C.1, C.2, C.3, C.4, D.1, D.2, and E.1 are federally enforceable.

NEW SOURCE REVIEW FORM B

PTI Number: 03-16262 Facility ID: 0351010025

FACILITY NAME Union Tank Car Company

FACILITY DESCRIPTION Rental of Rail Cars CITY/TWP Marion

Emissions Unit ID: **P002**

SIC CODE 4741 SCC CODE 9-99-999-99 EMISSIONS UNIT ID K001

EMISSIONS UNIT DESCRIPTION Paint spray booth with dry filtration

DATE INSTALLED 1983

EMISSIONS: (Click on bubble help for Air Quality Descriptions)

Pollutants	Air Quality Description	Actual Emissions Rate		PTI Allowable	
		Short Term Rate	Tons Per Year	Short Term Rate	Tons Per Year
Particulate Matter					
PM ₁₀					
Sulfur Dioxide					
Organic Compounds	Attainment	17.5 lbs/hr (coating) 751.7 lbs/month (cleanup)	52.5 (coating) 4.51 (cleanup)	17.5 lbs/hr (coating) 751.7 lbs/month (cleanup)	52.5 (coating) 4.51 (cleanup)
Nitrogen Oxides					
Carbon Monoxide					
Lead					
Other: Air Toxics					

APPLICABLE FEDERAL RULES:

NSPS? NESHAP? PSD? OFFSET POLICY?

WHAT IS THE BAT DETERMINATION, AND WHAT IS THE BASIS FOR THE DETERMINATION?

Compliance with the terms and conditions of this permit.

IS THIS SOURCE SUBJECT TO THE AIR TOXICS POLICY? YES

OPTIONAL: WHAT IS THE CAPITAL COST OF CONTROL EQUIPMENT? \$

TOXIC AIR CONTAMINANTS

Ohio EPA's air toxics policy applies to contaminants for which the American Conference of Governmental Industrial Hygienists (ACGIH) has a listed threshold limit value.

AIR TOXICS MODELING PERFORMED*? X YES NO

IDENTIFY THE AIR CONTAMINANTS:

methyl isobutyl ketone, toluene, diethylene glycol monomethyl ether, ethylene glycol monobutyl ether acetate, xylene, n-butyl alcohol, MEK, methyl n-amyl ketone, isopropyl alcohol, propylene glycol monomethyl ether, isobutyl alcohol and acetone

